

IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF MICHIGAN

UNITED STATES OF AMERICA	)	
	)	
	)	
Plaintiff,	)	Civil Action No. 2:10-cv-13101-BAF-RSW
	)	
v.	)	Judge Bernard A. Friedman
	)	
DTE ENERGY COMPANY, and	)	
DETROIT EDISON COMPANY	)	Magistrate Judge R. Steven Whalen
	)	
Defendants.	)	
	)	

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**PLAINTIFF'S MOTION FOR PRELIMINARY INJUNCTION**

Plaintiff United States of America, by its undersigned counsel, moves this Court for a preliminary injunction, pursuant to Fed. R. Civ. P. 65, requiring Defendants to take steps to offset the illegal pollution from Monroe Power Plant Unit 2. Defendants modified Monroe Unit 2 without obtaining permits and installing pollution controls as required by the Clean Air Act. This failure to comply with the law is causing irreparable harm to the public health downwind of the Monroe Plant. Plaintiff seeks a preliminary injunction requiring Defendants to (i) begin the process of obtaining the necessary permits for the Monroe Unit 2 modification and (ii) offset the pollution from Monroe Unit 2 through emissions reductions in Defendants' fleet of coal-fired power plants.

This motion is supported by the brief and exhibits filed herewith.

Respectfully submitted,

IGNACIA S. MORENO  
Assistant Attorney General  
Environment & Natural Resources Division

Dated: August 6, 2010

/s/ Thomas A. Benson

JUSTIN A. SAVAGE  
Senior Counsel  
THOMAS A. BENSON (MA Bar # 660308)  
Trial Attorney  
Environmental Enforcement Section  
Environment & Natural Resources Division  
U.S. Department of Justice  
P.O. Box 7611  
Washington, D.C. 20530  
(202) 514-5261  
thomas.benson@usdoj.gov

BARBARA McQUADE  
United States Attorney  
Eastern District of Michigan

OF COUNSEL:  
SABRINA ARGENTIERI  
MARK PALERMO  
SUSAN PROUT  
Associate Regional Counsel  
United States Environmental  
Protection Agency, Region 5  
77 W. Jackson Blvd.  
Chicago, IL 60604

ELLEN CHRISTENSEN  
Assistant United States Attorney  
Eastern District of Michigan  
211 W. Fort St., Suite 2001  
Detroit, MI 48226

APPLE CHAPMAN  
Attorney Adviser  
United States Environmental  
Protection Agency  
1200 Pennsylvania Ave. NW  
Washington D.C. 20460

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**MEMORANDUM IN SUPPORT OF  
PLAINTIFF'S MOTION FOR PRELIMINARY INJUNCTION**

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## **ISSUES PRESENTED**

Pursuant to Local Rule 7.1(d)(2), the issues presented by this motion are:

1. Whether a preliminary injunction is appropriate to minimize the harm from Defendants' violation of the New Source Review program of the Clean Air Act.
2. The nature of the preliminary injunction that best secures complete justice.

The leading authority supporting Plaintiff's argument is set forth on the next page.

## **LEADING AUTHORITY FOR THE RELIEF SOUGHT**

### *I. Standard for Injunctive Relief*

#### **Cases**

*Winter v. NRDC, Inc.*, 129 S. Ct. 365 (2008)

*Porter v. Warner Holding Co.*, 328 U.S. 395 (1946)

*Stenberg v. Cheker Oil Co.*, 573 F.2d 921 (6th Cir. 1978)

### *II. Violation of Clean Air Act New Source Review Program*

#### **Cases**

*United States v. Ohio Edison Co.*, 276 F. Supp. 2d 829, 850 (S.D. Ohio 2003)

*New York v. U.S. E.P.A.*, 413 F.3d 3 (D.C. Cir. 2005)

#### **Statutes**

42 U.S.C. § 7413

42 U.S.C. § 7475(a)

42 U.S.C. § 7479

#### **State Regulations**

Mich. Admin. Code R. 336.2801

### *III. Irreparable Harm and Appropriate Remedy*

#### **Cases**

*United States v. Cinergy Corp.*, 618 F. Supp. 2d 942 (S.D. Ind. 2009)

*United States v. Cinergy Corp.*, 582 F. Supp. 2d 1055 (S.D. Ind. 2008)

*Amoco Prod. Co. v. Vill. of Gambell*, 480 U.S. 531 (1987)

*Stenberg v. Cheker Oil Co.*, 573 F.2d 921, 925 (6th Cir. 1978).

#### **Statutes**

42 U.S.C. § 7413

42 U.S.C. § 7477

## INTRODUCTION

Defendants failed to comply with the law at Monroe Unit 2, and that failure is harming the health of the people living downwind of the plant: causing premature death, heart attacks, and respiratory problems, among other effects. Plaintiff United States comes before this Court seeking a preliminary injunction to minimize the harm to public health from Defendants' unpermitted pollution.

This is a case under the New Source Review (“NSR”) program, one of the cornerstones of the modern Clean Air Act (“CAA” or “Act”). NSR is a tool to reduce pollution from individual sources. The program represents a compromise in the Clear Air Act Amendments passed in 1977: from that point on, new sources would have to obtain NSR permits and reduce harmful emissions by installing state-of-the-art pollution controls. However, existing sources would not have to make such emission reductions immediately. Instead, Congress deferred existing sources from NSR compliance until they were modified, a term defined in the statute as any physical change that results in an increase in pollution. As the D.C. Circuit Court explained shortly after the NSR law was passed: “The statutory scheme intends to ‘grandfather’ existing industries; but the provisions concerning modifications indicate that this is not to constitute a perpetual immunity from all standards under the . . . program. If these plants increase pollution, they will generally need a permit.” *Alabama Power Co. v. Costle*, 636 F.2d 323, 400 (D.C. Cir. 1979).

Unit 2 at the Monroe Power Plant began operating in 1973, and has so far avoided the stringent emission reductions imposed by the NSR program. This spring, however, over the course of three months, Defendants DTE Energy Co. and Detroit Edison Co. (collectively “DTE” or “Defendants”) performed a \$65 million overhaul of Monroe Unit 2 that qualified as a

“modification” ending the unit’s grandfathered status. By any measure, this was a large project – indeed, it was trumpeted on the front page of the local paper as “Extreme makeover: Power plant edition.” As part of the overhaul, Defendants replaced and upgraded major components that had been breaking down and causing the unit to be unable to generate power. Replacing those worn out components will allow the unit to run more in the future – and to generate more pollution, thus triggering NSR. As the Seventh Circuit explained in a similar case, “aging produces more frequent breakdowns and so reduces a plant’s hours of operation and hence its output,” so renovating a plant to increase the plant’s operating hours can trigger NSR. *United States v. Cinergy Corp.*, 458 F.3d 705, 709 (7th Cir. 2006). Here, the company’s own projection forecast an emissions increase of 3,701 tons of sulfur dioxide (“SO<sub>2</sub>”) and 4,096 tons of oxides of nitrogen (“NO<sub>x</sub>”) per year – increases of 12% and 39%, respectively – both of which are far above the 40-ton level that requires an NSR permit. Defendants’ own statements and projections thus show a huge, textbook modification that triggered pollution reduction requirements.

However, despite EPA’s determination that the project required a permit and warning to Defendants not to operate the unit without following the law, DTE failed to obtain NSR permits or install pollution controls and began operating the unit again in June. The company thus avoided the NSR-mandated pollution reductions that were required of Unit 2 once it lost its grandfathered status. The state-of-the-art pollution controls required at modified sources can reduce emissions 90% to 99% at units like Monroe 2. Defendant’s failure to install the required controls has resulted, and will continue to result, in massive amounts of unpermitted, uncontrolled pollution that would have been eliminated had the company complied with the law. This illegal pollution is causing harm to human health downwind of the Monroe power plant,

including premature mortality, heart attacks, and exacerbation of respiratory ailments like asthma.

Plaintiff United States comes before this Court seeking a preliminary injunction to minimize the harm from Monroe Unit 2's unpermitted pollution until a final judgment is reached and Defendants obtain the necessary NSR permits and begin operating state-of-the-art controls at Unit 2. Specifically, the United States respectfully requests that the Court order Defendants to (i) begin the process of obtaining the necessary NSR permits, and (ii) take steps to reduce emissions from Monroe Unit 2 or other coal-fired units in their system in order to mitigate and offset the excess pollution currently being emitted from Monroe Unit 2 as a result of Defendants' unpermitted modification of that unit.

## **BACKGROUND**

### **I. THE CLEAN AIR ACT**

Congress enacted the CAA “to protect and enhance the quality of the Nation’s air resources so as to promote the public health and welfare and the productive capacity of its population.” 42 U.S.C. § 7401(b)(1); *Nat’l Parks Conservation Ass’n, Inc. v. Tenn. Valley Auth.*, 480 F.3d 410, 412 (6th Cir. 2007) (“NPCA”); H. R. Rep. No. 91-1146, 91<sup>st</sup> Cong., 2d Sess. 1 (1970), *reprinted in* 1970 U.S.C.C.A.N. 5356 (purpose “is to speed up, expand, and intensify the war against air pollution in the United States with a view to assuring that the air we breathe throughout the nation is wholesome once again.”). Section 109 of the Act, 42 U.S.C. § 7409, requires EPA to establish national ambient air quality standards (“NAAQS”) that specify the maximum permissible concentration of air pollutants in different areas of the country. The CAA requires states to meet these NAAQS by developing plans, called State Implementation Plans (“SIPs”), which impose regulatory requirements on individual sources of air pollution. 42

U.S.C. §§ 7410(a)(1), (a)(2). SIPs are subject to EPA approval; once approved they are federally enforceable. 42 U.S.C. §§ 7413(a), (b).

#### **A. The New Source Review Program**

The NSR program was added by the 1977 CAA Amendments after earlier programs failed to achieve the statutory goals. *See Envtl. Def. v. Duke Energy Corp.*, 549 U.S. 561, 567-68 (2007); *NPCA*, 480 F.3d at 412. Congress reaffirmed its dedication to using the Clean Air Act to reduce air pollution and improve public health: “First, and foremost, protection of the public health remains the paramount purpose and value under the Act. . . [T]he overriding commitment of the 1977 Act (just as the 1970 legislation) is to the protection of public health.” Statement of Rep. Rogers, Clean Air Conference Report (1977): Statement of Intent; Clarification of Select Provisions, House Consideration of the Report of the Conference Committee, 123 CONG. REC. 27,070 (1977). In order to ease the initial burden of complying with NSR, Congress “grandfathered” existing sources from the program, so that they would only have to comply once they made modifications. The expectation was that, over time, the existing units would either be retired or would undergo overhauls to keep operating, and that those overhauls would trigger NSR. “Congress chose to ‘grandfather’ existing pollution sources from the NSPS and NSR provisions at the time the statute was enacted. . . Congress did not, however, intend that such existing sources be forever spared the burden and expense of installing pollution control devices.” *United States v. Ohio Edison Co.*, 276 F. Supp. 2d 829, 850 (S.D. Ohio 2003); *see also Alabama Power*, 636 F. 2d at 400; *United States v. Cinergy Corp.*, 458 F.3d 705, 709 (7th Cir. 2006) (“The Clean Air Act treats old plants more leniently than new ones. . . But there is an expectation that old plants will wear out and be replaced by new ones that will be subject to the more stringent pollution controls that the Clean Air Act imposes on new plants.”).

The NSR program has two components: a Prevention of Significant Deterioration (“PSD”) program applying in areas of the country that do not exceed the NAAQS, 42 U.S.C. §§ 7470-7479, and a Nonattainment NSR (“NNSR”) program for areas that fail to satisfy the NAAQS, 42 U.S.C. §§ 7501-7515. *See Duke Energy*, 549 U.S. at 567-68. The statutory purposes of the PSD program include:

- protecting “public health and welfare from any actual or potential adverse effect which in the [EPA] Administrator’s judgment may reasonably be anticipate[d] to occur from air pollution” and
- ensuring that “emissions from any source in any State will not interfere with any portion of the applicable [SIP] to prevent significant deterioration of air quality for any other State.”

42 U.S.C. § 7470(1), (4).<sup>1</sup>

Both the PSD and NNSR programs are relevant here because the Monroe Power Plant is located in Monroe County, Michigan, a region in attainment with SO<sub>2</sub> and NO<sub>x</sub> standards but that has failed to reach the PM2.5 NAAQS. PM2.5 consists of particles that are 2.5 microns or less, where 1 micron is 1 millionth of a meter. Ex. 1, Declaration of Lyle Chinkin (“Chinkin Dec.”) ¶8. As described in Section II.B of the Argument, these particles can lodge deep in the lung and cause myriad health problems.

While some of the details and terminology differ, for the purposes of this motion, PSD and NNSR can be treated together. Both require a source to obtain permits and install state-of-the-art pollution controls, required by statute to be the “best available control technology,” whenever the source undergoes a major modification. 42 U.S.C. §§ 7475(a) (PSD), 7503

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<sup>1</sup> The other listed statutory purposes are to protect and enhance air quality in national parks and other special areas; ensure that economic growth will “occur in a manner consistent with the preservation of existing clean air resources;” and to ensure careful review and public participation. 42 U.S.C. § 7470.

(NNSR). A major modification is any physical change that would be expected to result in a significant net increase in emissions. Mich. Admin. Code R. 336.2801(aa)(i) (PSD rules); 40 C.F.R. § 51 Appendix S (NNSR rules).<sup>2</sup> For both SO<sub>2</sub> and NO<sub>x</sub>, any emissions increase greater than 40 tons per year triggers NSR. Mich. Admin. Code R. 336.2801(qq). Increases in SO<sub>2</sub> trigger PM2.5 NSR review because SO<sub>2</sub> is a so-called “precursor,” *i.e.*, SO<sub>2</sub> converts to PM2.5 once in the air. 73 Fed. Reg. 28,321, 28,325-28 (May 16, 2008). Thus a physical change that increases SO<sub>2</sub> can trigger NSR review for both SO<sub>2</sub> and PM2.5.

The applicable rules require that NSR applicability be determined *before* a source begins work. *Ohio Edison*, 276 F. Supp. 2d at 881; *United States v. S. Ind. Gas & Elec. Co.*, No. IP99-1692-C-M/F, 2002 WL 1629817, at \*3 (S.D. Ind. July 18, 2002). If a project constitutes a modification, sources are required to obtain a permit, install pollution controls, and meet other requirements before beginning the work. *See, e.g.*, 42 U.S.C. §§ 7475(a), 7503(a). Obtaining a permit, designing, and installing the necessary controls can take up to three to four years. Ex. 3, Declaration of Ranajit Sahu (“Sahu Dec.”) ¶20.

## **B. Regulatory Exemptions From New Source Review**

There are two regulatory exemptions to NSR that Defendants invoke here: one for routine maintenance projects and one for emissions increases that are unrelated to the physical change. *See* Ex. 2-C, March 12, 2010 Letter from Kelly Guertin (DTE Energy) to William Presson (Michigan Department of Environmental Quality) (“Notice Letter”). At the outset of the NSR program, EPA created an exception for physical changes that constitute routine maintenance, repair, or replacement. EPA must interpret the “routine maintenance” exception narrowly “as limited to ‘*de minimis* circumstances.’” *New York v. EPA* (“*New York II*”), 443 F.3d 880, 884

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<sup>2</sup> EPA has approved Michigan’s SIP with respect to the PSD rules, but not with respect to the relevant NNSR rules. Thus the Michigan SIP sets forth the federally enforceable PSD rules, while EPA regulations control for NNSR. In practice, the standards are essentially the same for the purposes of the Monroe Unit 2 project.

(D.C. Cir. 2006); *see also Alabama Power*, 636 F.2d at 400. The statute compels a narrow reading of the exemption; the CAA contains no exception to the PSD provisions. Nonetheless the D.C. Circuit has held that, because “the law does not concern itself with trifling matters,” the EPA has the discretion to exempt “some emission increases on the grounds of *de minimis* or administrative necessity.” *Alabama Power*, 636 F.2d at 360, 400. That discretion, however, “is narrow in reach and tightly bounded by the need to show that the situation is genuinely *de minimis* or one of administrative necessity.” *Id.* at 361; *see also New York II*, 443 F.3d at 884, 888.

EPA made the limited nature of the exemption clear to Defendants a decade ago after DTE asked for an applicability determination for an upgrade project at other coal-fired electric generating units at the Monroe Plant. EPA issued a determination that the project did not qualify as routine, but that it would not trigger NSR if there was no emissions increase (as Detroit Edison claimed in its request). Ex. 4, May 23, 2000 Letter from Frank Lyons (U.S. EPA) to Henry Nickel (Hunton & Williams) (“Applicability Determination”). In its analysis, EPA noted that the definition of modification in the statute and regulations is “sweeping” in scope and that “any regulatory exemption . . . should be interpreted in a limited way.” *Id.* at 13. EPA stressed the “narrowly limited scope of the exemption” and stated that routine should be given its typical meaning: “of a commonplace or repetitious character . . . relating to . . . established procedure.” *Id.* at 15.

The other exemption Defendants have raised allows a source to exclude emissions increases not related to the physical change and is known as the “demand growth” or “capable of accommodating” exclusion. The standard for excluding any portion of an emissions increase requires the utility to show that “(1) [t]he unit could have achieved the necessary level of

utilization during the consecutive 24-month period [the source] selected to establish the baseline actual emissions; and (2) the increase is not related to the physical or operational change(s) made to the unit.” *New York v. U.S. E.P.A.*, 413 F.3d 3, 33 (D.C. Cir. 2005) (citing 67 Fed Reg. 80,186, 80,203 (Dec. 31, 2002)); *see also* Mich. Admin. Code R. 336.2801(b)(ii)(C).

### **C. Clean Air Act Enforcement Provisions**

The Clean Air Act includes two enforcement provisions relevant to this case. The first is Section 113 of the Act, 42 U.S.C. § 7413, which grants EPA the authority to take action against violations of the CAA or approved state SIPs. Under Section 113(b), EPA can seek injunctive relief and civil penalties of up to \$37,500 per day for each such violation after January 12, 2009, pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990, 28 U.S.C. § 2461, as amended by 31 U.S.C. § 3701. The second enforcement provision is specific to PSD violations. Section 167 of the Act provides that: “The [EPA] Administrator shall . . . take such measures, including issuance of an order, or seeking injunctive relief, as necessary to prevent the construction or modification of a major emitting facility which does not conform to the requirements of [PSD] . . . .” 42 U.S.C. § 7477.

## **II. DEFENDANTS AND THE MONROE POWER PLANT**

Defendant DTE Energy Co. is a publicly traded utility holding company headquartered in Detroit, Michigan. Defendant Detroit Edison Co. is a wholly-owned subsidiary of DTE Energy Co. Both are Michigan corporations with the same principal place of business in Detroit, Michigan. Detroit Edison owns and operates the Monroe Power Plant, while DTE Energy qualifies as an operator of the plant under the Clean Air Act based on its involvement in decisions concerning capital projects, like those at issue in this case, and environmental permitting.

Defendants own and operate six coal-fired plants in Michigan. Ex. 2, Declaration of Ethan Chatfield (“Chatfield Dec.”) ¶6. The Monroe plant is located in Monroe, Michigan, on the western shore of Lake Erie and approximately 40 miles southwest of Detroit. Ex. 1, Chinkin Dec. ¶20 & Figure 15 (map of DTE plants). The plant has four coal-fired electric generating units called Units 1-4. Monroe Unit 2 is an 823 megawatt (“MW”) unit that began operation in 1973. At the time Monroe Unit 2 was constructed, the industry expected that units would operate for 30 to 35 years before being retired or relegated to occasional service. Ex. 5, Declaration of Robert Koppe (“Koppe Dec.”) ¶33. Monroe Unit 2 has already operated beyond its original life expectancy. *Id.*

A power plant consists of three major elements: the boiler, the turbine, and the generator. Ex. 6, Declaration of A. Michael Hekking (“Hekking Dec.”) ¶6. The boiler is a large structure (12 stories tall for Monroe 2) where coal is burned and the energy from the burning coal is transferred to water to create the steam that turns the turbine. Ex. 6, Hekking Dec. ¶¶6-7; Ex. 2-D, April 22, 2010 Article by Charles Slat from “The Monroe Evening News” entitled, “Extreme makeover: Power plant edition” (“Extreme Makeover Article”). The boiler is largely comprised of components of tubes that carry water and steam. Ex. 6, Hekking Dec. ¶6. The economizer, pendant reheater, and waterwalls at issue in this case are each major boiler components. Ex. 5, Koppe Dec. ¶73.<sup>3</sup>

Monroe Unit 2 has no advanced SO<sub>2</sub> or NO<sub>X</sub> pollution controls, while the remaining Monroe units already have state-of-the-art pollution controls for SO<sub>2</sub> and NO<sub>X</sub> installed or under construction. DTE has stated that it will install flue gas desulfurization (“FGD”), the most effective SO<sub>2</sub> pollution control, at Unit 2 by approximately 2014. Ex. 2-B, December 8, 2009 DTE Energy Press Release entitled, “DTE Energy Environmental Project Will Create 900 Jobs.”

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<sup>3</sup> For a more detailed description of the way a coal-fired utility boiler works, see Ex. 6, Hekking Dec. ¶¶6-15.

DTE also publicly announced that it would install selective catalytic reduction (“SCR”), the top NO<sub>X</sub> control, but now says it said it has no firm plans to do so. Ex. 2, Chatfield Dec. ¶17; Ex. 2-B.

Monroe Unit 2 emitted 27,230 tons of SO<sub>2</sub> and 8,205 tons of NO<sub>X</sub> in 2009, and was the largest individual emitting unit of both pollutants in the state of Michigan that year. Ex. 1, Chinkin Dec. ¶5. Among other effects, the SO<sub>2</sub> and NO<sub>X</sub> emissions from the plant contribute to the formation of tiny particles known as PM2.5, while the NO<sub>X</sub> emissions from the plant contribute to ground-level ozone. *Id.* ¶¶8, 10. EPA has determined that, “Both ozone and PM<sub>2.5</sub> are associated with serious public health problems, including premature mortality . . . .” 75 Fed. Reg. 22,896, 22,900 (Apr. 30, 2010).

### **III. EPA ENFORCEMENT HISTORY AND THE MONROE UNIT 2 PROJECT**

#### **A. The Monroe Unit 2 Overhaul**

On or about March 13, 2010, DTE began a \$65-million overhaul at Monroe Unit 2. Ex. 2-D, Extreme Makeover Article. This project included the complete replacement of two major boiler components: the pendant reheat (also known as the high temperature reheat) and the economizer, at a cost of approximately \$30 million. *Id.* Defendants also replaced about 2,000 square feet of waterwall tubes from the boiler. Ex. 5, Koppe Dec. ¶54. For each of the major boiler components replaced, DTE staff described the problem posed by the component and the objective of the replacement in documents justifying the capital spending:

- *Economizer:* “The Unit 2 economizer tubes have been damaged during lengthy service in an erosive environment. Tube failures and forced outages are occurring at an increasing rate. Objective: Operation of the unit without forced outages caused by economizer tube failures.

- *High Temperature Reheater:* “Unit 2 has experienced reheater pendant failures resulting in forced outages. Analysis done by the Boiler Tube Task Force predicts more frequent failures in the future. Objective would be to improve the reliability of Unit 2.”
- *Waterwalls:* “improve reliability due to water wall tube failure.”

Ex. 2-F, Excerpts of DTE Documents Produced in Response to Request During EPA’s June 2, 2010 Inspection of Monroe Generating Station (“Inspection Documents”). At peak, the project required 700 contract workers at the site. Ex. 2-A, June 3, 2010 Notes from M. Ackerman and E. Chatfield (U.S. EPA) of June 2, 2010 Monroe Generating Station Inspection (“Inspection Notes”) at 2. Removing the old boiler components required cutting “a giant access hole near the top of the 12-story power plant.” Ex. 2-D, Extreme Makeover Article. The new components are so heavy that they must be hoisted in pieces by a “giant crane” and then loaded onto a monorail built specifically for the project that carries them to the point of installation. *Id.* The project was unprecedented in the four decade history of the Monroe Power Plant. *Id.*; Ex. 2-A, Inspection Notes at 2-4. On April 22, 2010, about halfway through the project, the work was described in the lead story on the front page of the local newspaper as “Extreme makeover: Power plant edition.” Ex. 2-D, Extreme Makeover Article.

DTE mailed a notification letter (“Notice Letter”) to the Michigan Department of Natural Resources and Environment on March 12, 2010 – the day before starting the project. Ex. 2-C, Notice Letter. Under the applicable rules, DTE is required to provide notice and retain information about capital projects that *could* trigger NSR, even if the company believes the projects do not trigger. Mich. Admin. Code R. 336.2818(3). The Notice Letter stated that DTE was about to begin a 12-week outage. In the Notice Letter, DTE projected huge emissions

increases after the project, but stated that the company believed it did not need to proceed with NSR permitting because certain regulatory exclusions applied. DTE began the project the very next day, completing construction activities and resuming operation of Monroe Unit 2 in June.

#### **B. EPA Enforcement History**

EPA had been investigating potential NSR violations at Monroe and the other DTE plants well before Defendants began the 2010 Monroe Unit 2 project. In July 2009, EPA issued a Notice of Violation (“2009 NOV”) to DTE, which cited 35 prior construction projects at the Monroe plant and other DTE coal-fired power plants – each of which the NOV stated were “major modifications” that increased emissions – as NSR violations. Ex. 2, Chatfield Dec. ¶24. EPA and DTE met to discuss those violations in September 2009 at a formal NOV “conference,” an opportunity that EPA generally provides companies receiving an NOV under the Act. There, EPA informed the company that it disagreed with DTE’s application of the NSR rules and its conclusions that numerous prior projects did not trigger NSR. *Id.* ¶¶24-26. At the conference, EPA also invited DTE to discuss the matter further if it had any uncertainty about EPA’s position on when construction projects required NSR preconstruction permits. *Id.* ¶26. Six months later, DTE went ahead with the Monroe Unit 2 project. This \$65 million construction project was larger in cost and scope than any of the projects in EPA’s July 2009 NOV. In excusing itself from NSR permitting, DTE relied on the same analysis that EPA specifically told DTE was insufficient to exempt prior construction projects from permitting.

Despite the 2009 NOV, and EPA’s warnings at the conference, DTE did not contact EPA about the Monroe Unit 2 project. Instead, EPA received a copy of the Notice Letter on May 21, 2010, two months into construction. Because the letter itself demonstrated NSR liability unless Defendants’ asserted defenses were viable, EPA issued Defendants several requests for

information pursuant to its authority under Section 114 of the Clean Air Act, 42 U.S.C. § 7414.

Ex. 2, Chatfield Dec. ¶12 n.3. Defendants' responses confirmed that the company expected an emissions increase and that no defenses to NSR applicability existed. On June 4, 2010, EPA issued Defendants an NOV specifically for the Monroe Unit 2 project, finding that it violated PSD and NNSR. Ex. 2-E. On the same day, EPA provided a final warning: the Agency sent a letter to Defendants stating that the project violated NSR and that, "The seriousness of the violation would be compounded by beginning operation of the illegally modified unit." Ex. 2-J, June 4, 2010 Letter from Phillip Brooks (U.S. EPA) to Michael Solo (DTE Energy). Defendants restarted the unit, and the instant complaint followed.

The United States' complaint may be amended to allege additional claims, but we filed now because of the uniquely flagrant nature of the NSR violation and the importance of obtaining preliminary relief.

## **ARGUMENT**

Defendants performed a \$65-million overhaul of the aged Monroe Unit 2 without complying with NSR. The failure to follow the law means the unit will emit much more pollution than it otherwise would have if Defendants had obtained NSR permits and installed pollution controls. The likelihood of success on the merits and the stark public health harm from Defendants' unpermitted emissions support a preliminary injunction that will minimize the harm by requiring pollution reductions to make up for Monroe Unit 2's unpermitted emissions.

## I. THE COURT'S EQUITABLE AUTHORITY

### A. Legal Standard For Issuing A Preliminary Injunction

The traditional standard for an injunction requires the plaintiff to show “that he is likely to succeed on the merits, that he is likely to suffer irreparable harm in the absence of preliminary relief, that the balance of equities tips in his favor, and that an injunction is in the public interest.” *Winter v. NRDC, Inc.*, 129 S. Ct. 365, 374 (2008). Traditionally, Sixth Circuit courts have balanced the four factors set out above in evaluating a motion for preliminary injunction. *Overstreet v. Lexington-Fayette Urban County Government*, 305 F.3d 566, 573 (6th Cir. 2002) (“These factors are not prerequisites, but are factors that are to be balanced against each other.”). “Although the factors are to be balanced, a finding that there is no likelihood of irreparable harm or no likelihood for success on the merits is usually fatal.” *Livonia Prop. Holdings, L.L.C. v. 12840-12976 Farmington Rd. Holdings, L.L.C.*, No. 10-11589, -- F. Supp. 2d --, 2010 WL 1956867, at \*4 (E.D. Mich. May 13, 2010) (citing *Winter*, 129 S. Ct. at 374 and *Gonzales v. Nat'l Bd. of Med. Exam'rs*, 225 F.3d 620, 625 (6th Cir. 2000)).

### B. The Court Has Broad Equitable Authority

Once the Court decides equitable relief is appropriate, it has broad discretion to craft the most appropriate relief to “secur[e] complete justice.” *United States v. Universal Mgmt. Servs., Inc.*, 191 F.3d 750, 762 (6th Cir. 1999).

The Court’s equitable authority in this case does not come just from the Clean Air Act, but is inherent in the Court’s equitable jurisdiction itself. “For several hundred years, courts of equity have enjoyed sound discretion to consider the necessities of the public interest when fashioning injunctive relief.” *United States v. Oakland Cannabis Buyers’ Co-op.*, 532 U.S. 483, 496 (2001) (internal citations and quotation marks omitted). This tradition can be traced

throughout American history back to English common law. *Franklin v. Gwinnett County Pub. Schools*, 503 U.S. 60, 66-67 (1992). Unless specifically curtailed by Congress, “all the inherent equitable powers of the District Court are available for the proper and complete exercise of [its equitable] jurisdiction.” *Porter v. Warner Holding Co.*, 328 U.S. 395, 398 (1946); *Universal Mgmt. Servs.*, 191 F.3d at 761. Indeed, “the court may go beyond the matters immediately underlying its equitable jurisdiction and decide whatever other issues and give whatever other relief may be necessary under the circumstances. Only in that way can equity *do complete rather than truncated justice.*” *Porter*, 328 U.S. at 398 (emphasis added).

The traditional equitable authority entrusted to the district court includes the power to enjoin otherwise lawful conduct as necessary to mitigate past harm from violations of law. In another NSR enforcement case, the *Cinergy* court found that “it has the authority to order Defendants to take appropriate actions that remedy, mitigate and offset harms to the public and the environment caused by the Defendants’ proven violations of the CAA.” *United States v. Cinergy Corp.*, 582 F. Supp. 2d 1055, 1060 (S.D. Ind. 2008); *see also Garrison v. Baker Hughes Oilfield Operations, Inc.*, 287 F.3d 955, 961 (10th Cir. 2002) (“A federal court’s equity jurisdiction affords it the power to enjoin otherwise lawful activity when necessary and appropriate in the public interest to correct or dissipate the evil effects of past unlawful conduct.”) (quoting *United States v. Holtzman*, 762 F.2d 720, 724-25 (9th Cir. 1985)) (further citations omitted); *United States v. Deaton*, 332 F.3d 698, 713-14 (4th Cir. 2003) (Clean Water Act case). By allowing courts to “grant additional injunctive relief . . . remedying harm caused by [defendants’] past violations,” equity “gives meaning to the statute’s grant of enforcement authority.” *U.S. Public Interest Research Group v. Atlantic Salmon of Maine, LLC*, 339 F.3d 23, 31 (1st Cir. 2003) (Clean Water Act case).

A district court's equitable authority is at its apex when the public interest is at stake. In such cases, a district court's "equitable powers assume an even broader and more flexible character than when only a private controversy is at stake." *Porter*, 328 U.S. at 398 (citing *Virginian Ry. Co. v. Sys. Fed'n No. 40*, 300 U.S. 515, 552 (1937)); *United States v. Miami Univ.*, 294 F.3d 797, 819 (6th Cir. 2002) ("Courts of equity may, and frequently do, go much farther both to give and withhold relief in furtherance of the public interest than they are accustomed to go when only private interests are involved.") (quoting *Virginian Railway*, 300 U.S. at 552). Statutes like the Clean Air Act that are devoted to, among other goals, protecting public health provide a compelling justification for expansive injunctive relief. As one court explained in a case under the Safe Drinking Water Act, "[T]he Court has the responsibility in this case of crafting a remedy that is protective of public health, *and this responsibility necessarily takes preeminence over all other considerations.*" *United States v. Alisal Water Corp.*, 326 F. Supp. 2d 1010, 1027 (N.D. Cal. 2002) (emphasis added).

Contrary to what Defendants may argue, the Court is not limited to prohibitory injunctions or maintaining the status quo in a preliminary injunction, nor is there a heightened standard for injunctions that go beyond maintaining the status quo. The Sixth Circuit has made clear that "the focus always must be on prevention of injury by a proper order, not merely on preservation of the status quo." *Stenberg v. Cheker Oil Co.*, 573 F.2d 921, 925 (6th Cir. 1978). In a more recent case the Sixth Circuit further explained,

We therefore see little consequential importance to the concept of the status quo, and conclude that the distinction between mandatory and prohibitory injunctive relief is not meaningful. . . [W]e hold that the traditional preliminary injunctive standard -- the balancing of equities -- applies to motions for mandatory preliminary injunctive relief as well as motions for prohibitory preliminary injunctive relief.

*United Food & Commercial Workers Union, Local 1099 v. Southwest Ohio Reg'l Transit Auth.*, 163 F.3d 341, 348 (6th Cir. 1998).

## II. THE PUBLIC IS ENTITLED TO PRELIMINARY INJUNCTIVE RELIEF

The traditional injunctive relief factors strongly favor the United States' proposed relief. The United States is highly likely to succeed on the merits. This is a \$65-million overhaul that Defendants themselves predict will cause a massive emissions increase. It was done in open defiance of EPA, the federal agency Congress charged with enforcing the law. *See Ala. Dep't of Envtl. Conservation v. EPA*, 540 U.S. 461, 464 (2004) ("Congress vested EPA with explicit and sweeping authority to enforce CAA 'requirements' relating to the construction and modification of sources under the PSD program"). The irreparable harm is stark: Defendants' unpermitted pollution is causing harm – including premature death – to the public. That injury, which goes to both the irreparable harm and public interest factors, could be largely eliminated by the relief sought by the United States. Finally, the burden on Defendants is minimal by comparison. DTE will still be able to operate the unit, but will simply have to reduce emissions. The cost of the interim pollution reduction is small enough not to impact Defendants or their customers.

### A. The United States Is Likely To Succeed On The Merits

To establish a violation of NSR, the plaintiff must show that: (a) a defendant is a "person" who "owns" or "operates" the source;<sup>4</sup> (b) the source is a "major emitting facility;" (c) the defendant "modified" the source through a "physical change" that would result in a

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<sup>4</sup> Detroit Edison holds itself out as the owner and operator of the Monroe plant. Defendants may argue that DTE Energy does not qualify as either an owner or an operator. Under the case law, an entity qualifies as an operator if it "had 'significant or substantial or real control and supervision' over a project." *United States v. Anthony Dell'Aquila, Enter. & Subsidiaries.*, 150 F.3d 329, 334 (3rd Cir. 1998) (quoting *United States v. Walsh*, 783 F. Supp. 546, 548 (D. Wash. 1991)). DTE has such control: for instance, the DTE Energy CEO and chairman of the board had to approve the component replacements that triggered NSR liability. Ex. 2-F, Inspection Documents. The Notice Letter also references DTE as the entity performing the project. Ex. 2-C, Notice Letter. In any event, the Court need not address DTE Energy's liability at this stage, since there is no dispute about Detroit Edison's status as a liable party.

“significant net increase in emissions” of any air pollutant subject to regulation under the Act; and (d) the defendant failed to obtain an NSR permit and failed to apply the requisite pollution controls. 42 U.S.C. §§ 7413(b), 7475(a), 7479(2)(C). The only element that requires analysis is whether the project constitutes a major modification under NSR; the other elements are uncontroversial. Ex. 2, Chatfield Dec. ¶¶7, 9, 17 (addressing elements (a), (b), and (d) above). In addition, Defendants’ own submissions make clear that there was both a physical change<sup>5</sup> and a projected increase in emissions. Thus Defendants’ liability hinges on the applicability of two regulatory exemptions to NSR applicability. As discussed in turn below, neither the exemption for routine maintenance nor that for emissions increases unrelated to the project avails DTE here.

### **1. The Project Is Not Routine Maintenance**

Defendants spent \$65 million in an unprecedented effort to improve the performance of Monroe Unit 2. We discuss below the details of the routine maintenance analysis, but common sense compels the conclusion that this project was “anything but routine.” *See United States v. Ohio Edison Co.*, 276 F. Supp. 2d 829, 861 (S.D. Ohio). As the *Ohio Edison* court explained

While the analysis required to distinguish between a modification sufficient to trigger compliance from routine maintenance, repair and replacement is complex, the distinction is hardly subtle. Routine maintenance, repair and replacement occurs regularly, involves no permanent improvements, is typically limited in expense, is usually performed in large plants by in-house employees, and is treated for accounting purposes as an expense. In contrast to routine maintenance stand capital improvements which generally involve more expense, are large in scope, often involve outside contractors, involve an increase of value to the unit, are usually not undertaken with regular frequency, and are treated for accounting purposes as capital expenditures on the balance sheet.

276 F. Supp. 2d at 834.

In determining whether a project qualifies for the routine maintenance exemption, EPA has typically considered four factors known as the “WEPCO factors”: (1) nature and extent;

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<sup>5</sup> Under the law, physical change is defined extremely broadly, so there is no question that a physical change has occurred here. *See, e.g., Wisconsin Elec. Power Co. v. Reilly*, 893 F.2d 901, 905 (7th Cir. 1990).

purpose; (3) frequency; and (4) cost. *See, e.g., Ohio Edison*, 276 F. Supp. 2d at 834. As described in Section I.B of the Background, the exemption is narrowly construed. The burden of demonstrating that the exemption applies rests with DTE. *See, e.g., id.* at 856 (citing *United States v. First City Nat'l Bank of Houston*, 386 U.S. 361, 366 (1967)); *N.L.R.B. v. Kentucky River Cmty. Care, Inc.*, 532 U.S. 706, 711 (2001) (applying “general rule of statutory construction that the burden of proving justification or exemption under a special exception to the prohibitions of a statute generally rests on one who claims its benefits.”) (internal citations omitted). Each of these factors supports a finding that this project is far from routine.

*Nature and extent.* This project was extremely large by any measure. Plaintiff’s expert witness Michael Hekking, a former plant manager with the Tennessee Valley Authority, describes the nature and extent as “massive.” Ex. 6, Hekking Dec. ¶45. The project leader DTE hired to manage the project agreed, calling it a “large, labor-intensive job.” Ex. 2-D, Extreme Makeover Article. Both the economizer and pendant reheater replacements were considered major capital projects by DTE, and required the approval of senior company officials, including the CEO and Chairman of the Board of DTE Energy. Ex. 2-H, Direct Testimony of Paul Fessler before Michigan Public Service Commission, Case No. U-15768 (“Fessler Testimony”); Ex. 2-F, Inspection Documents.

*Purpose.* After nearly 40 years of operation, the pendant reheater and economizer had reached the end of their useful life. Ex. 5, Koppe Dec. ¶116. The purpose of the project was to replace those components with upgraded designs and materials in order to avoid forced outages and thus improve the ability of the plant to generate electricity. Ex. 2-F, Inspection Documents. Such purposes have been treated in the past by courts and by EPA as a clear indication that a project is not routine, especially given that increased availability from fewer forced outages also

often effectively results in a life extension of the unit in question. *See Ohio Edison*, 276 F. Supp. at 860; Ex. 7, September 9, 1988 Memo from Don Clay (U.S. EPA) to David Kee (U.S. EPA) (“Clay Memo”) at 3-4.

*Frequency.* This project is unique in the four-decade history of the Monroe Power Plant. First, it is the first time DTE has completely replaced the economizer or pendant reheater at Monroe Unit 2. Ex. 2-A, Inspection Notes at 2-3. Second, it is the first time that DTE has performed work on *both* the economizer and the reheater at the same time. Ex. 2-D, Extreme Makeover Article. The unprecedented nature of the work makes it clear that this project is highly infrequent. *See* Ex. 7, Clay Memo at 5 (project is infrequent when it occurs once or twice during the life of the unit); Ex. 4, Applicability Determination at 3 (same).

*Cost.* The total cost of the March to June 2010 outage work at Monroe Unit 2 was approximately \$65 million, of which approximately \$30 million was spent on replacing the pendant reheater and the economizer. The reheater and economizer replacements were capital improvement projects. Ex. 2-H, Fessler Testimony. Such large capital expenditures are not routine. Ex. 7, Clay Memo at 3 (projects that require significant expenditures of capital, rather than maintenance funds, are not routine).

If a \$65-million unit overhaul qualifies as routine maintenance, the exemption has “swallow[ed] both the rule and specific provisions of the Clean Air Act.” *Ohio Edison*, 276 F. Supp. 2d at 855. This project is far from routine.

## 2. The Project Will Cause a Significant Net Emissions Increase

Defendants have conceded that at the time of the project they expected massive emissions increases: NSR is triggered with an increase of 40 tons per year of NO<sub>X</sub> or SO<sub>2</sub>, and Defendants predicted emissions increases about 100 times larger.<sup>6</sup> The only question is whether Defendants can show that the increase is unrelated to the project and qualify for the “capable of accommodating” exclusion. As we discuss below, DTE cannot make the necessary showing. There are two independent bases for finding an emissions increase. First, because DTE cannot satisfy the requirement to exclude its projected emissions increase as unrelated to the project, its own Notice Letter demonstrates an NSR-triggering increase. Second, Plaintiff’s witnesses have looked at DTE’s documents and determined that the company should expect emissions to increase as a result of the overhaul.

### ***Emissions Increase Based On DTE’s Notice Letter***

Defendants admit that they expected a huge emissions increase after the project. In its Notice Letter, DTE presented emissions calculations showing an increase of 3,701 tons of SO<sub>2</sub> and 4,096 tons of NO<sub>X</sub> per year, each an order of magnitude larger than the NSR significance threshold. Ex. 2-C, Notice Letter. This projected increase was based on the results of a production cost model known as PROMOD, a model used by DTE and other utilities to forecast how their units will be utilized in the future and therefore what resources will be required (for instance, the amount of coal to purchase). *Id.* The PROMOD analysis DTE used was the same analysis that formed the basis of DTE’s application to the Michigan Public Service Commission for recovering power supply costs from ratepayers. *Id.*; Ex. 8, Declaration of Bruce Biewald

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<sup>6</sup> In determining whether an emissions increase exists, the applicable rules require comparing annual emissions over a 24-month period in the five years before the project with expected annual emissions after the project. Defendants selected separate 24-month periods as their NO<sub>X</sub> and SO<sub>2</sub> baselines, and we have used those baselines in our analysis.

(“Biewald Dec.”) ¶¶8-10. The Notice Letter and the supporting PROMOD analysis demonstrate that – at the time it began the project – DTE actually expected a huge emissions increase. Ex. 2-C, Notice Letter; Ex. 8, Biewald Dec. ¶7. Unless DTE can show that a defense applies, that expectation is sufficient to trigger NSR obligations. *Ohio Edison*, 276 F. Supp. 2d at 850 (“compliance with the CAA is triggered when an existing source makes a ‘modification’ which results in an increase in emissions, unless a regulatory exemption applies to the activity.”); Ex. 3, Sahu Dec. ¶14.

DTE asserted in the Notice Letter that its *entire* projected emissions increase could be excluded under a regulatory exemption for emissions increases not related to the project known as the demand growth or capable of accommodating exclusion. The standard for excluding any portion of an emissions increase requires the utility to show that “(1) [t]he unit could have achieved the necessary level of utilization during the consecutive 24-month period [the source] selected to establish the baseline actual emissions; and (2) the increase is not related to the physical or operational change(s) made to the unit.” *New York v. U.S. E.P.A.*, 413 F.3d 3, 33 (D.C. Cir. 2005) (citing 67 Fed Reg. 80,186, 80,203 (Dec. 31, 2002)); *see also* Mich. Admin. Code R. 336.2801(b)(ii)(C). The burden for demonstrating that emissions can be excluded rests with the source. *See* Ex. 9, *United States v. Cinergy Corp.*, 1:99-cv-01693-LJM-JMS (S.D. Ind.), Final Jury Instructions, Dkt. 1535, May 21, 2008 (“The burden is on Defendants to prove by a preponderance of the evidence that the demand growth exclusion applies to an emissions increase.”); *Kentucky River Cnty. Care*, 532 U.S. at 711 (applying general rule that party claiming benefit of exemption bears burden).

First, the company has failed to meet its pre-project obligations for asserting the capable of accommodating exclusion. Under the NSR rules, DTE has an obligation to maintain records

to substantiate any claimed exclusion. 72 Fed. Reg. 72,607, 72,610 (Dec. 21, 2007); Mich. Admin. Code R. 336.2818(3)(a)(f), (4). In a May 28, 2010 Information Request to DTE under its Section 114 authority, EPA sought any information DTE believes supports its contention that the work done during the outage does not require a permit. Ex. 2-I, May 28, 2010 Letter from Phillip Brooks (U.S. EPA) to Michael Solo (DTE Energy). DTE failed to provide any information to substantiate its exclusion claim. Since NSR requires a pre-project applicability determination, the failure to develop and maintain information to support its exclusion precludes DTE from relying on it as a defense now.

Second, DTE's own documents demonstrate that it expected emissions to increase *as a result of* the project. As described above, the company's project justification documents stated that replacing the economizer and pendant reheat was necessary to eliminate forced outages and improve unit availability. This is reflected in the company's expectations and planning modeling. For the baseline periods before the project, DTE reported that Monroe Unit 2 was forced out of service from 14% to 17% of the time. Ex. 5, Koppe Dec. ¶89. In the PROMOD modeling run that formed the basis for DTE's submissions to the state, the company assumed that the outage rate would drop to 8% to 9% after the project. Ex. 2-G, June 3, 2010 Letter from Michael Solo (DTE Energy) to Mark Palermo (U.S. EPA) ("DTE June 3, 2010 Letter"). The only change at the unit that could explain such a significant performance improvement is the project. Ex. 5, Koppe Dec. ¶¶89, 119-123. Defendants' own PROMOD modeling also shows that after the project, Monroe Unit 2's availability and generation are expected to increase. Ex. 2-G, June 3 DTE Letter. The results indicate what common sense would expect: decreasing outage time leads to increased availability and increased availability leads to increased generation and pollution. Ex. 2-G, DTE June 3, 2010 Letter; Ex. 8, Biewald Dec. ¶¶18, 21.

Monroe Unit 2 ran every hour it was available in the five years before the project. Ex. 5, Koppe Dec. ¶34. In the future, it will run during the additional, available hours recovered by replacing the worn out economizer and pendant reheatert. *Id.* These additional hours are clearly related to the project.

#### ***Emissions Increase Based On Analysis Upheld In Prior Litigation<sup>7</sup>***

The same relationship between outage time, availability, and generation that is reflected in DTE’s PROMOD modeling is the foundation of the United States’ emissions analysis set forth in the declarations of Robert Koppe and Ranajit Sahu. The analysis is founded on the common sense premise – reflected in Defendants’ own documents – that replacing major boiler components, such as economizers and reheaters, that have deteriorated and are causing outages will result in greater unit availability. When a unit is available to run more, particularly when the unit is considered “base load,” it will be called on to generate more electricity. This is true for Monroe Unit 2. Ex. 8, Biewald Dec. ¶15. Greater generation in turn typically means additional pollution. *See, e.g., United States v. Ohio Edison Co.*, 276 F. Supp. 2d 829, 869, 878-81 (S.D. Ohio 2003). Plaintiff’s expert witness Myron Adams worked in generation planning at American Electric Power, the nation’s largest electric utility, for four decades, and stresses that the primary purpose of replacing boiler components like those at issue is to increase the unit’s generation, thus allowing the utility to produce more electricity and/or decrease its power production costs by running cheaper units like Monroe Unit 2 more. Ex. 10, Declaration of Myron Adams (“Adams Dec.”) ¶¶9, 12-15; *see also* Ex. 11, Declaration of Matthew Kahal

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<sup>7</sup> Because DTE’s own projected increase and the company’s inability to show that it qualifies for the exclusion establish liability, the Court need not consider the parallel analysis presented by the United States. In prior litigation, the defendants had not done the analysis found here in the Notice Letter, so plaintiffs performed their own analysis.

(“Kahal Dec.”) ¶¶12-13. The projects pay for themselves through increased generation. Ex. 10, Adams Dec. ¶¶13-15.

Mr. Koppe, who has studied the availability of coal-fired power plants for more than three decades as a consultant for industry and the government, determined that the pendant reheater and economizer had reached the end of their productive life and had been causing outages of the unit throughout the five years before the project. Ex. 5, Koppe Dec. ¶¶61, 116. For the baseline periods selected by DTE, the pendant reheater and economizer prevented the units from operating for 724 hours for the SO<sub>2</sub> baseline period and 908 hours for the NO<sub>X</sub> baseline period. *Id.* ¶92. Mr. Koppe further concluded that the replacement would eliminate those outages in the future, allowing the unit to run those additional hours. *Id.* ¶61. These conclusions are supported by DTE’s own documents. As described above, the project justification documents set forth the poor condition of the old components and the expectations for avoiding related outages in the future. DTE expected that the time lost due to outages would drop by nearly half after the project. *Id.* ¶89. DTE then used the PROMOD model to forecast the effect of reducing the unit’s forced outages and the results showed improved availability and increased generation from Unit 2. Ex. 8, Biewald Dec. ¶21.

Dr. Sahu took Mr. Koppe’s analysis and calculated the additional pollution that would be generated by Unit 2 operating additional hours thanks to the new components. Dr. Sahu’s calculations projected an increase of 1,382 tons of SO<sub>2</sub> and 735 tons of NO<sub>X</sub>. Ex. 3, Sahu Dec. ¶¶10. While these increases are lower than those projected by DTE in the Notice Letter, the calculation is intentionally conservative in several respects. *See* Ex. 5, Koppe Dec. ¶¶23-32, 110. In addition, the entirety of the predicted increase set forth by Dr. Sahu is related to the project because it is based solely on the additional generation allowed by recovering outage

hours caused by the specific components replaced. *Id.* ¶28. Accordingly, there is no basis for excluding any portion of this projected actual emissions increase.

#### **B. The Failure To Follow NSR Is Causing Irreparable Harm To The Public**

The unpermitted pollution from Monroe Unit 2 is harming the health of people downwind of the plant, causing premature death, heart attacks, and respiratory problems, among other health effects. This health proof is based on the scientific consensus and has been endorsed by the only court to hear a NSR remedy case. *United States v. Cinergy Corp.*, 618 F. Supp. 2d 942 (S.D. Ind. 2009); *see generally* Ex. 12, Declaration of Joel Schwartz (“Schwartz Dec.”).

From the moment it resumed operation after the project, Monroe Unit 2 has been generating much more pollution than the law allows. NSR requires a modified source to install state-of-the-art pollution controls. For a coal-fired unit like Unit 2, such controls would reduce the emissions of NO<sub>X</sub> and SO<sub>2</sub> by 90% to 99%. Ex. 3, Sahu Dec. ¶¶18-19; *Cinergy*, 618 F. Supp. 2d at 955 (finding current best available control technology requirement was pollution controls that could remove 90% of NO<sub>X</sub> and 99% of SO<sub>2</sub>). If Defendants had complied with the law, those controls would eliminate at least 7,942 tons of NO<sub>X</sub> and 26,525 tons of SO<sub>2</sub> each year. Ex. 3, Sahu Dec. ¶¶18-19. Eliminating that much SO<sub>2</sub> would be the equivalent of removing 371,000 heavy-duty trucks from the road – all the heavy-duty trucks registered in Michigan, Illinois, Ohio, and Indiana combined. Ex. 1, Chinkin Dec. ¶7. The excess NO<sub>X</sub> emissions are the equivalent of 1 million passenger cars, a quarter of all the cars in Michigan. *Id.* The Monroe Unit 2 excess emissions are larger than those from the *Cinergy* case, where the court ordered injunctive relief that included shutting the units down within four months of its decision. *See Cinergy*, 618 F. Supp. 2d at 949.

These excess emissions of NO<sub>X</sub> and SO<sub>2</sub> mix with other pollutants in the air to form PM2.5. Ex. 1, Chinkin Dec. ¶8; *Cinergy*, 618 F. Supp. 2d at 949. Consisting of tiny particles that are dwarfed by a human hair, PM2.5 can be inhaled and lodges deep in the lung. Ex. 12, Schwartz Dec. ¶13; Ex. 1, Chinkin Dec. ¶8; *Cinergy*, 618 F. Supp. 2d at 949. The scientific community, including the American Medical Association and the American Cancer Society, has determined that PM2.5 causes health impacts including increased respiratory ailments, heart attacks, and premature mortality. *Cinergy*, 618 F. Supp. 2d at 949-50 (listing scientific and medical groups in agreement); *Am. Farm Bureau Fed'n v. E.P.A.*, 559 F.3d 512, 515 (D.C. Cir. 2009) (“Studies have demonstrated that both fine and coarse PM can have negative effects on public health and welfare. For example, each is associated with increased mortality (premature death) rates and morbidity (illness) effects such as cardiovascular disease and decreased lung function.”). Studies also demonstrate that PM2.5 causes decreased lung function and increased instances of chronic bronchitis, stroke, and hospitalizations for heart attacks and respiratory problems. Ex. 12, Schwartz Dec. ¶¶48, 52, 87-88, 91. The health impacts from PM2.5 are linear, so that any decrease in PM2.5 will improve health. *Id.* ¶¶76-77, 82; *Cinergy*, 618 F. Supp. 2d at 950. As another court found in granting injunctive relief against coal-fired power plants in a recent public nuisance case, “PM2.5 exposure has significant negative impacts on human health, even when the exposure occurs at levels at or below the NAAQS.” *North Carolina v. Tenn. Valley Auth.*, 593 F. Supp. 2d 812, 821 (W.D.N.C. 2009) *rev'd on other grounds*, No. 09-1623, --- F.3d ----, 2010 WL 2891572 (July 26, 2010). In *Cinergy*, the court found that a smaller amount of excess emissions than that at issue here “has a significant impact on human health” in several states surrounding the plant. *Cinergy*, 618 F. Supp. 2d at 963.

The unpermitted SO<sub>2</sub> and NO<sub>x</sub> emissions from Monroe Unit 2 are harming downwind communities. Epidemiologist Dr. Joel Schwartz is a tenured professor at the Harvard School of Public Health and Harvard Medical School, a recipient of the MacArthur Fellowship, and the most cited author worldwide in the air pollution field. Ex. 12, Schwartz Dec. ¶1. Dr. Schwartz estimated that the unpermitted emissions from Monroe 2 will cause approximately 90 premature deaths per year – one death every four days – in the communities downwind of the plant, based on estimates of harm from power plant emissions published in a peer-reviewed scientific paper. *Id.* ¶¶116-120.

The Monroe Unit 2 NO<sub>x</sub> and SO<sub>2</sub> excess emissions increase PM2.5 concentrations across a swath of the Midwest, including metropolitan areas such as Detroit and Cleveland where the air quality already falls short of the NAAQS, the standard set by EPA to protect public health. Ex. 1, Chinkin Dec. ¶12; 42 U.S.C. § 7409. Increasing the concentration of pollution with unpermitted emissions in areas already found to be out of compliance with federal standards is sufficient to establish irreparable harm. *See Ohio Valley Envtl. Coalition v. Hobet Mining, LLC*, No. 3:09-1167, -- F. Supp. 2d --, 2010 WL 2739990, at \*28-29 (S.D.W.Va. July 12, 2010) (finding injunctive relief appropriate based on violation of Clean Water Act permit). The impact from Monroe Unit 2 on PM2.5 concentrations is similar to the impact in the *Cinergy* case, where the court found that injunctive relief, including shutdown, was necessary.

There can be little doubt that Monroe Unit 2's unpermitted emissions are causing irreparable harm. As the Supreme Court has stated, “Environmental injury, by its nature, can seldom be adequately remedied by money damages and is often permanent or at least of long duration, *i.e.*, irreparable.” *Amoco Prod. Co. v. Vill. of Gambell*, 480 U.S. 531, 545 (1987). The

damage to people's lives and health cannot be undone, highlighting the importance of prompt preliminary relief that avoids such harms.

### **C. The Equities Favor Injunctive Relief**

The burden on DTE from the relief the United States proposes is minor compared to the severe harm the public is suffering. The United States proposes a remedy that fully mitigates and offsets the illegal pollution from Monroe Unit 2 in a manner that minimizes the burden imposed on Defendants.

#### **1. Plaintiff's Proposed Relief**

Now that its grandfathered status under the law has ended, Monroe Unit 2 is emitting tens of thousands of tons of pollution more per year than is allowed by law, at a tremendous cost to the public health. At best, it will take three to four years to obtain the NSR permits and install the state-of-the-art pollution controls necessary for Monroe Unit 2 to return to compliance with the law. Sitting in equity, the Court's charge is the "prevention of injury by a proper order." *Stenberg v. Cheker Oil Co.*, 573 F.2d 921, 925 (6th Cir. 1978). Here preventing injury requires finding a way to avoid the harm to public health by eliminating or offsetting the unpermitted pollution.

The simplest way to prevent the harm from Monroe Unit 2's unpermitted pollution would be to shut the unit down until it complies with NSR. The shutdown remedy lies within the Court's broad equitable authority, was ordered in *Cinergy* for a coal-fired power plant that violated NSR, and would provide a powerful incentive for DTE to comply as soon as possible. However, that remedy might create more factual issues for the parties to litigate. Rather than litigate the alleged hardships from shutdown at this time, the United States proposes a preliminary injunction that requires Defendants to:

- Begin the process of obtaining NSR permits for the Monroe Unit 2 modification; and
- Apply interim pollution controls or otherwise reduce emissions from other DTE coal-fired units in order to mitigate the emissions from Monroe Unit 2.

Requiring DTE to begin the permitting process now will minimize the duration of the irreparable harm from Monroe Unit 2 by ensuring that the permit is obtained as soon as possible. This will impose minimal burden on Defendants: the cost and effort to obtain a permit is not significant compared to the costs of installing the FGD that Defendants have already said they will install. Ex. 3, Sahu Dec. ¶20; Ex. 2-B.

Requiring DTE to mitigate the Monroe Unit 2 pollution with reductions at its coal-fired units will ensure that the public will not suffer from Defendants' failure to comply with the law. While the state-of-the-art pollution controls ultimately required by law at Monroe Unit 2 will take up to four years to install, Defendants could use other standard SO<sub>2</sub> and NO<sub>x</sub> reduction techniques that could be operating in less than a year. Because Defendants' coal-fired power plants are all in eastern Michigan, reductions at other facilities will largely benefit the same communities harmed by Monroe Unit 2's pollution. For instance, the Trenton Channel Plant is only 18 miles away from Monroe, and tends to affect the same area, based on modeling of the two plants' emissions. Ex. 1, Chinkin Dec. ¶20. A preliminary injunction that required Defendants to offset the Monroe Unit 2 unpermitted pollution would avoid the 90 deaths per year, and other harm to public health, that would otherwise be caused by Defendants' failure to comply with the law. This reduction in pollution would provide the benefit of NSR to the communities downwind of Monroe Unit 2.

While the United States believes that DTE could be allowed to decide the most efficient way to offset the Monroe Unit 2 pollution, subject to EPA's review and approval, we propose

one set of measures in order to illustrate what could be required. Defendants could use the NO<sub>X</sub> removal technology known as selective non-catalytic reduction (“SNCR”) and the SO<sub>2</sub> removal technology known as dry sorbent injection. Both of these methods could be operating within nine months. Ex. 3, Sahu Dec. ¶22. While their effectiveness varies based on the operating conditions, it is reasonable to assume that dry sorbent injection could remove 65% of the SO<sub>2</sub> from Defendants’ units, while SNCR could remove 25% of the NO<sub>X</sub>. *Id.* ¶¶22, 24. Installing these controls at Belle River Units 1 and 2 and Trenton Channel Unit 9A would result in the elimination of about 29,898 tons of SO<sub>2</sub> and 3,268 tons of NO<sub>X</sub> per year. *Id.* ¶¶24-25. The total reduction would offset nearly the entire Monroe Unit 2 unpermitted emissions, and the remaining emissions could be made up through minor operational changes.<sup>8</sup> *Id.* ¶¶22, 25. This example case could be expected to require \$39 million in capital spending and \$14 million in annual operating costs. *Id.* ¶25. The total annual cost to Defendants of this illustrative program, after spreading the capital cost over several years per typical practice, would be about \$19 million per year. Ex. 11, Kahal Dec. ¶14. It is possible that Defendants, given their greater knowledge of the details of their system, could achieve the same reductions at significantly less cost.

This type of preliminary relief is intended to expeditiously provide the benefit to the public required by NSR at the minimum cost. Importantly, the United States is *not* asking for state-of-the-art controls at Monroe Unit 2 at this time; any order on such permanent relief to bring the unit into compliance with NSR will await the Court’s final decision on the merits. Nor is the United States demanding the shutdown of Unit 2 until such controls are installed. Instead,

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<sup>8</sup> This particular reductions program yields greater SO<sub>2</sub> reduction and less NO<sub>X</sub> reduction than the Monroe Unit 2 excess emissions. The benefit to the environment will be similar to eliminating the unpermitted emissions, since SO<sub>2</sub> and NO<sub>X</sub> have similar effects and SO<sub>2</sub> can be more damaging, depending on the circumstances. Ex. 12, Schwartz Dec. ¶118-119; Ex. 1, Chinkin Dec. ¶21.

the United States' proposed preliminary relief allows the flexibility to reduce emissions at other coal-fired units in Michigan, thus minimizing the burden on Defendants.

**2. The Harm Avoided by Injunctive Relief Outweighs any Hardship to Defendants**

The cost to Defendants of offsetting the illegal pollution from Monroe Unit 2 is vastly outweighed by the harm to the public if no relief is granted.

An interim, cost effective emissions reduction program can be fashioned that will not pose a significant hardship to Defendants or their customers. To put the cost of the interim controls described above in perspective, Defendant Detroit Edison had an operating cash flow of more than \$1 billion in 2009 and paid a \$305 million dividend to parent DTE. Ex. 11, Kahal Dec. ¶¶7, 15. Matthew Kahal, an independent economist specializing in energy economics, testifies that the cost of offsetting the Monroe Unit 2 emissions will not harm DTE or its customers. Ex. 11, Kahal Dec. ¶¶15-16. Moreover, by reducing NO<sub>x</sub>, SO<sub>2</sub>, and mercury emissions, the pollution reduction program will lessen Defendants' costs of complying with other regulatory programs. Ex. 3, Sahu Dec. ¶26.

The cost of an interim emissions reduction program will also be minimal compared to the \$65 million cost of the Unit 2 overhaul or the ultimate cost of state-of-the-art pollution controls at the unit. Defendants have stated that installing SCR and FGD at Monroe Unit 2 would cost about \$630 million. Ex. 3, Sahu Dec. ¶20; Ex. 2-B. In November 2009, the company announced that it was going ahead with those pollution controls, though it now says it has no plans to install SCR. Ex. 2-B; Ex. 2, Chatfield Dec. ¶17. The cost of the interim relief requested by the United States could be achieved for about 6% of the total SCR and FGD cost that Defendants expected to incur less than a year ago.

Finally, and most importantly, the cost of the pollution reduction pales in comparison to the human health impact without preliminary relief. As described above, the unpermitted pollution from Monroe Unit 2 is causing a spectrum of health impacts, including premature mortality. It is unjust for anyone breathing the air downwind of the Monroe plant to die or get sick because Defendants flouted the law. Even if one were to view the health effects of defendant's violations through an economic lens, the cost to public health dwarfs the burden of the remedy here. Based on studies that measure how much a person would spend to avoid a risk of death, economists have estimated the value of a human life for the purpose of regulatory cost-benefit analyses. Ex. 12, Schwartz Dec. ¶¶116-117. EPA has used approximately \$6 million per death as its benchmark in evaluating air pollution reduction programs. *See, e.g.*, 75 Fed. Reg. 45,210, 45,349 (Aug. 2, 2010) (proposed regional rule to reduce PM2.5 and ozone; using value of \$6.3 million per life in year 2000 dollars). By this measure, the benefit from saving 90 lives per year can be estimated at \$540 million per year – dramatically outweighing the roughly \$19 million annual cost to Defendants of the interim pollution reduction program outlined above. Ex. 12, Schwartz Dec. ¶¶116-120; Ex. 11, Kahal Dec. ¶14.

### **3. Plaintiff's Proposed Relief Implements the Congressional Purpose of New Source Review**

As described above, the balance of the equities favors the injunction proposed by the United States: the harm from Monroe Unit 2's pollution is much greater than the burden to mitigate that pollution. The United States' proposed relief is further supported by the Congressional intent behind NSR.

In 1977, Congress crafted a grand bargain: existing sources would not have to immediately install state-of-the-art pollution controls, but they would eventually have to install controls or shutdown as they aged. Monroe Unit 2 has enjoyed the fruits of this bargain for more

than three decades of operation – throughout its entire original expected lifetime – without advanced pollution controls. Now the unit has reached the critical point established by Congress: Defendants modified the unit and so must reduce emissions by using state-of-the-art pollution controls. 42 U.S.C. § 7475(a). While the Court retains its equitable discretion in selecting the appropriate injunctive relief, “Courts of equity cannot, in their discretion, reject the balance that Congress has struck in a statute.” *United States v. Oakland Cannabis Buyers’ Co-op.*, 532 U.S. 483, 497-98 (2001). Congress required steep emissions reductions at precisely this point; the United States’ proposed injunction yields just such reductions while minimizing the impact on Defendants.

Such injunctive relief is particularly appropriate given the “extraordinary weight courts of equity place upon the public interests in a suit involving more than a mere private dispute . . . and from the deference courts afford the political branches in identifying and protecting the public interest.” *United States v. Marine Shale Processors*, 81 F.3d 1329, 1359 (5th Cir. 1996) (citing *Georgia v. Tennessee Cooper Co.*, 206 U.S. 230, 237-38 (1907); *Virginian Ry. v. Sys. Fed’n No. 40*, 300 U.S. 515, 552 (1937)); see also *United States v. Miami Univ.*, 294 F.3d 797, 819 (6th Cir. 2002) (“Courts of equity may, and frequently do, go much farther both to give and withhold relief in furtherance of the public interest than they are accustomed to go when only private interests are involved.”) (quoting *Virginian Railway*, 300 U.S. at 552).

In this case, like in *Cinergy*, “an order requiring Defendants to take actions that remedy, mitigate, and offset harms caused to the public and the environment by their past CAA violations would seem to give effect to the CAA’s purpose ‘to protect and *enhance* the quality of the Nation’s air resources so as to promote the public health and welfare.’” *United States v. Cinergy Corp.*, 582 F. Supp. 2d 1055, 1061-62 (S.D. Ind. 2008) (citing 42 U.S.C. § 7401 (emphasis

supplied by *Cinergy* court)). Both the balance of equities between the parties and the Congressional purpose of enhancing air quality favor preliminary relief here.

## CONCLUSION

When Monroe Unit 2 reached its original life expectancy and major boiler components began wearing out, DTE embarked on a \$65 million overhaul to significantly improve unit operations. This is precisely the moment Congress intended that existing units would have to install state-of-the-art pollution controls. Defendants have failed to comply with the law, and the direct result of that failure is unpermitted pollution harming the public health. Sitting in equity, this Court's charge is the "prevention of injury by a proper order." *Stenberg v. Cheker Oil Co.*, 573 F.2d 921, 925 (6th Cir. 1978). The United States respectfully requests that the Court minimize the harm from Monroe Unit 2's unpermitted pollution by ordering emissions reductions to make up for the pollution that Monroe Unit 2 should not be generating. Such an order brings the long-awaited benefits of New Source Review to the communities in Michigan and surrounding states affected by Monroe Unit 2's pollution.

Respectfully submitted,

IGNACIA S. MORENO  
Assistant Attorney General  
Environment & Natural Resources Division

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/s/ Thomas A. Benson  
JUSTIN A. SAVAGE  
Senior Counsel  
THOMAS A. BENSON (MA Bar # 660308)  
Trial Attorney  
Environmental Enforcement Section  
Environment & Natural Resources Division  
U.S. Department of Justice  
P.O. Box 7611  
Washington, D.C. 20530

(202) 514-5261  
thomas.benson@usdoj.gov

BARBARA McQUADE  
United States Attorney  
Eastern District of Michigan

OF COUNSEL:  
SABRINA ARGENTIERI  
MARK PALERMO  
SUSAN PROUT  
Associate Regional Counsel  
United States Environmental  
Protection Agency, Region 5  
77 W. Jackson Blvd.  
Chicago, IL 60604

ELLEN CHRISTENSEN  
Assistant United States Attorney  
Eastern District of Michigan  
211 W. Fort St., Suite 2001  
Detroit, MI 48226

APPLE CHAPMAN  
Attorney Adviser  
United States Environmental  
Protection Agency  
1200 Pennsylvania Ave. NW  
Washington D.C. 20460

### CERTIFICATE OF SERVICE

I hereby certify that on August 6, 2010, the foregoing "Motion for Preliminary Injunction" and the memorandum in support were filed electronically using the Court's ECF system and were also served by electronic mail (with exhibits served by FedEx) upon the following persons:

Michael J. Solo, Jr.  
DTE Energy Co.  
One Energy Plaza  
Detroit, MI 48226-1279  
[solom@dteenergy.com](mailto:solom@dteenergy.com)

F. William Brownell  
James W. Rubin  
Hunton & Williams LLP  
1900 K Street, NW  
Washington DC 20006  
[bbrownell@hunton.com](mailto:bbrownell@hunton.com)  
[jrubin@hunton.com](mailto:jrubin@hunton.com)  
*Attorneys for Defendants*

s/ Thomas A. Benson  
Counsel for the United States